09/445,710 OFFICIAL

1. (Amended) A process for stabilizing the pH of a pulp suspension at a desired pH level in the stock preparation of a paper machine, characterized by increasing the alkalinity of said paper making pulp suspension by adding thereto a combination of an alkali metal hydroxide feed and a carbon dioxide feed, each of said feeds being added in an amount greater than what would be required to only adjust the pH of the suspension to the desired pH level, which feeds substantially counter each other's pH changing effect, said feeds being provided in an amount sufficient to achieve a significant buffering effect of said pulp suspension while enabling utilization of an excess of said hydroxide or said carbon dioxide for adjusting the pH of said pulp suspension and maintaining the pH at a desired level from the addition of the feeds through the formation of paper on the paper machine.

11. (Amended) A process for producing paper comprising

providing a paper making pulp suspension in the stock preparation of a paper machine;

increasing the alkalinity of said pulp suspension by adding thereto a combination of an alkali metal hydroxide feed and a carbon dioxide feed which feeds substantially counter each others pH changing effect,

forming said pulp suspension into a web, and

drying said web to form paper,

said feeds being provided in an amount greater than that required to adjust the pH of the pulp suspension to a desired level, and said feeds being provided in an amount sufficient to achieve a substantial buffering effect of said pulp suspension while enabling utilization of an excess of said hydroxide or said carbon dioxide for adjusting the pH of said pulp suspension and for maintaining the pH at a desired level from the addition of the feeds to the formation of the pulp suspension into a web.

Please add new claim 13 as follows:

09/445,710 OFFICIAL

13. (New) A process for producing paper comprising the steps of providing a paper making pulp suspension for use in a paper machine, providing an alkali metal hydroxide feed to the paper making pulp suspension, providing a carbon dioxide feed to the paper making pulp suspension, adjusting the pH of the pulp suspension to a desired pH level if the pH of the pulp suspension is different than the desired pH level, and

adding an excess of alkali metal hydroxide to the paper making pulp suspension through the alkali metal hydroxide feed and adding an excess of carbon dioxide to the paper making pulp suspension through the carbon dioxide feed, the excess amounts of alkali metal hydroxide and carbon dioxide being added in amounts that substantially counter each other's pH changing effect, the excess amounts of alkali metal hydroxide and carbon dioxide being added in amounts effective to achieve a significant pH buffering effect of the pulp suspension, and the excess amounts of alkali metal hydroxide and carbon dioxide being effective to stabilize the pH of the paper making pulp suspension from the point following said feeds through the formation of paper on the paper machine.

REMARKS

Applicant's undersigned counsel thanks the Examiner for the careful consideration given the application. In this preliminary amendment Claim 1 and 13 have been amended to more clearly define the invention. New claim 13 has also been added. Claim 13 is an independent claim written using the more standard "comprising" terminology.

In the last Office action The Examiner rejected claims 1-8 and 10-12 under 35 U.S.C. 102(b) as anticipated by Ostberg et al. ("Use of Carbon Dioxide in the Production of Sulphate Pulp"). In the alternative, the Examiner rejected claims 1-8 and 10-12 under 35 U.S.C. 103(a) as obvious over Ostberg. Ostberg sets forth the advantages of adding carbon dioxide (CO₂) to the wash water in a fiber plant. Claims 1 and 11 as amended require addition of carbon dioxide and alkali metal hydroxide in amounts that counteract each others pH changing effect and that are greater than would be required to adjust the pH of the pulp suspension to a desired pH. While Ostberg discloses adjusting the pH of the pulp suspension at various